

COMPLETE LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-8 (canceled)

Claim 9. (currently amended) A tire monitor configured for mounting on a vehicle, the tire monitor comprising:

a first shock sensor to produce a first motion signal;

a second shock sensor to produce a second motion signal; and

a control circuit coupled to the first shock sensor and the second shock to determine right side - left side position information for the tire monitor based on the first motion signal and the second motion signal.

Claim 10. (original) The tire monitor of claim 9 wherein the control circuit is configured to determine the right side - left side position information for the tire monitor based on a lag - lead relationship of the first motion signal and the second motion signal.

Claim 11. (currently amended) The tire monitor of claim 9 wherein the control circuit is configured to alternately sample the first motion signal and the second motion signal.

Claim 12. (original) The tire monitor of claim 9 further comprising:

a tire condition sensor to produce a tire condition signal; and

a radio circuit coupled to the control circuit to transmit radio signals based at least in part on the tire condition signal.

Claims 13-34 (canceled)

Claim 35 (new) A remote tire monitor system comprising:

a control unit; and

a plurality of tire monitors mountable on respective wheels of a vehicle to transmit radio signals to the control unit, the respective tire monitors each including

a pair of shock sensors to produce first and second sensor signals which are proportional to a change in force applied to the sensors, and

a control circuit configured to determine position information for the respective tire monitor based on the first and second sensor signals from the pair of sensors.

Claim 36. (new) The remote tire monitor system of claim 35 wherein the pair of shock sensors comprises:

a first piezoelectric sensor mounted to produce the first sensor signal in response to a change in force applied along a first axis; and

a second piezoelectric sensor mounted to produce the second sensor signal in response to a change in force applied along a second axis.

Claim 37. (new) The remote tire monitor system of claim 35 wherein the pair of shock sensors comprises:

first and second piezoceramic sensors.

Claim 38. (new) The remote tire monitor system of claim 35 further comprising:

a received signal strength indication (RSSI) circuit to determine relative strength of transmitted radio signals from tire monitors received at the control unit.

Claim 39. (new) The remote tire monitor system of claim 38 wherein the transmitted radio signals include the position information.

Claim 40. (new) The remote tire monitor system of claim 39 wherein the control unit is configured to determine respective positions of the plurality of tire monitors on the vehicle in response to the position information in the radio signals transmitted by respective tire monitors and the relative signal strength of the transmitted radio signals.

Claim 41. (new) The remote tire monitor system of claim 40 wherein the transmitted radio signals include right side - left side position information determined at the respective tire monitors in response to the first and second sensor signals and wherein the control unit determines forward - rear position information for the respective tire monitors based on the relative signal strength of the transmitted radio signals.

Claim 42. (new) The remote tire monitor system of claim 38 wherein the transmitted radio signals include temperature information and wherein the control circuit operates in response to compensation software, the control circuit in conjunction with the compensation software configured to compensate the relative strength of the transmitted radio signals using the temperature information.

Claim 43. (new) The tire monitor of claim 12 further comprising at least one

temperature sensor electrically coupled to the radio circuit, and wherein the transmitted radio signals include temperature information and wherein the control circuit operates in response to compensation software, the control circuit in conjunction with the compensation software configured to compensate the relative strength of the transmitted radio signals using the temperature information.